

### AMENDMENTS TO THE CLAIMS

Please replace the claim listing filed with the response on March 8, 2007 with the following claim listing. Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikethroughs and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently amended) An oligonucleotide comprising:

5'TCGX<sub>1</sub>X<sub>2</sub>N<sub>1</sub>3'

wherein X<sub>1</sub> is any nucleotide, X<sub>2</sub> is A, T, or C when X<sub>1</sub> is C or A, X<sub>2</sub> is A or G when X<sub>1</sub> is T, X<sub>2</sub> is any nucleotide when X<sub>1</sub> is G, N<sub>1</sub> is 2-95 nucleotides, wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, and wherein N<sub>1</sub> does not include an unmethylated CG motif, wherein the oligonucleotide is 13-100 nucleotides in length.

2. (Withdrawn) An oligonucleotide comprising:

5'TCGTN<sub>1</sub>3'

wherein N<sub>1</sub> is 3-96 nucleotides, wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein N<sub>1</sub> does not include an unmethylated CG motif and when N<sub>1</sub> is 16 nucleotides N<sub>1</sub> does not include a C<sub>12</sub> and when N<sub>1</sub> is 8 nucleotides N<sub>1</sub> is at least 50% C or 70% T.

3. (Withdrawn) An oligonucleotide comprising:

5'TCGAN<sub>1</sub>3'

wherein N<sub>1</sub> is 3-96 nucleotides, wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein N<sub>1</sub> does not include an unmethylated CG motif and when N<sub>1</sub> is 19 nucleotides N<sub>1</sub> is at least 55% pyrimidine, and when N<sub>1</sub> is 8 nucleotides N<sub>1</sub> is at least 50% T or C.

4. (Withdrawn) An oligonucleotide comprising:

5'TCGN<sub>1</sub>3'

wherein N<sub>1</sub> is 10-96 nucleotides, wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein the C content of the oligonucleotide is less

than or equal to 60%, and the A content is less than or equal to 30%, and wherein  $N_1$  does not include an unmethylated CG motif.

$N_1 N_2 N_3 TCG W N_4 N_5 N_6$                       N is any TCG

5. (Withdrawn) An oligonucleotide comprising:

5'TYZN<sub>1</sub>3'

wherein Y is a cytosine or modified cytosine, wherein Z is a guanine or modified guanine,  $N_1$  is 4-97 nucleotides, wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, and wherein the oligonucleotide does not include an unmethylated CG motif.

6. (Previously Presented) The oligonucleotide of claim 1, wherein the oligonucleotide includes at least 1 modified internucleotide linkage.

7. (Previously Presented) The oligonucleotide of claim 1, wherein the oligonucleotide includes at least 50% modified internucleotide linkage.

8. (Previously Presented) The oligonucleotide of claim 1, wherein all internucleotide linkages of the oligonucleotide are modified.

9. (Cancelled).

10. (Original) The oligonucleotide of claim 6, wherein the stabilized internucleotide linkage is a phosphorothioate linkage.

11. (Withdrawn) The oligonucleotide of claim 3, wherein the oligonucleotide has the following structure:

5' T\*C\*G\*A\*G\*G\*A\*C\*T\*T\*C\*T\*C\*T\*C\*A\*G\*G\*T\*T 3' (SEQ. ID NO.: 50) and wherein \* refers to a phosphorothioate linkage.

12. (Withdrawn) The oligonucleotide of claim 2, wherein the oligonucleotide has the following structure: 5' T\*C\*G\*T\*T\*T\*T\*T\*T\*T\*T\*T\*T\*T\*T\*T\*T 3' (SEQ. ID NO.: 2) and wherein \* refers to a phosphorothioate linkage.

13. (Withdrawn) The oligonucleotide of claim 1, wherein  $N_1$  is  $N_2 N_3$  and wherein  $N_2$  is 8-94 nucleotides and  $N_3$  is 2-5 pyrimidines.

14. (Withdrawn) The oligonucleotide of claim 13, wherein  $N_3$  is TTTTT.

15. (Withdrawn) The oligonucleotide of claim 13, wherein  $N_3$  is TT.

16. (Withdrawn) The oligonucleotide of claim 13, wherein  $N_2$  is 8-40 nucleotides.
17. (Previously Presented) The oligonucleotide of claim 1, wherein  $N_1$  is at least 50% pyrimidine.
18. (Previously Presented) The oligonucleotide of claim 1, wherein  $N_1$  is at least 80% pyrimidine.
19. (Previously Presented) The oligonucleotide of claim 1, wherein  $N_1$  is free of Poly-A and Poly-G sequences.
20. (Withdrawn) The oligonucleotide of claim 1, wherein  $N_1$  is  $TN_2$  and wherein  $N_2$  is 8-94 nucleotides.
21. (Withdrawn) The oligonucleotide of claim 1, wherein Y is selected from the group of modified cytosine bases consisting of 5-methyl cytosine, 5-methyl-isocytosine, 5-hydroxycytosine, 5-halogeno cytosine, uracil, N4-ethyl-cytosine, and 5-fluoro-uracil.
22. (Withdrawn) The oligonucleotide of claims 1, wherein Z is selected from the group of modified guanine bases consisting of 7-deazaguanine, 7-deaza-7-substituted guanine (such as 7-deaza-7-(C2-C6)alkynylguanine), 7-deaza-8-substituted guanine, hypoxanthine, 2,6-diaminopurine, 2-aminopurine, purine, 8-substituted guanine such as 8-hydroxyguanine, and 6-thioguanine, and 2-aminopurine.
23. (Previously Presented) The oligonucleotide of claim 1, wherein the oligonucleotide has a 3'-3' linkage with one or two accessible 5' ends.
24. (Original) The oligonucleotide of claim 23, wherein the oligonucleotide has two accessible 5' ends, each of which are 5'TCG.
25. (Withdrawn) A method for treating allergy or asthma, comprising:  
administering to a subject having or at risk of having allergy or asthma an oligonucleotide of claim 1 in an effective amount to treat allergy or asthma.
26. (Withdrawn) The method of claim 25, wherein the oligonucleotide is administered to a respiratory tissue.
27. (Withdrawn) The method of claim 25, wherein the subject has or is at risk of developing allergic asthma.
28. (Withdrawn) A method for inducing cytokine production, comprising:

administering to a subject an oligonucleotide of claim 1 in an effective amount to induce a cytokine selected from the group consisting of IP10, IL6, IL12, IL18, TNF, chemokines, IFN- $\alpha$  and IFN- $\gamma$ .

29. (Withdrawn) A method for treating infectious disease, comprising:  
administering to a subject having or at risk of having an infectious disease an oligonucleotide of claim 1 in an effective amount to treat the infectious disease.

30. (Withdrawn) The method of claim 29 wherein the subject has or is at risk of having a bacterial infection.

31. (Withdrawn) The method of claim 29 wherein the subject has or is at risk of having a viral infection.

32. (Withdrawn) A method for treating cancer, comprising:  
administering to a subject having or at risk of having cancer an oligonucleotide of claim 1 in an effective amount to treat cancer.

33. (Withdrawn) The method of claim 32, wherein the cancer is selected from the group consisting of biliary tract cancer, breast cancer, cervical cancer, choriocarcinoma, colon cancer, endometrial cancer, gastric cancer, intraepithelial neoplasms, lymphomas, liver cancer, lung cancer (e.g. small cell and non-small cell), melanoma, neuroblastomas, ovarian cancer, pancreatic cancer, prostate cancer, rectal cancer, sarcomas, thyroid cancer, renal cancer, bone cancer, brain and CNS cancer, connective tissue cancer, esophageal cancer, eye cancer, Hodgkin's lymphoma, larynx cancer, oral cavity cancer, skin cancer, and testicular cancer, as well as other carcinomas and sarcomas.

34. (Withdrawn) The method of claim 32, further comprising administering an anti-cancer agent.

35. (Withdrawn) A method for inducing innate immunity in a subject, comprising:  
administering to a subject an oligonucleotide of claim 1 in an effective amount to induce innate immunity.

36. (Withdrawn) A method for inducing a Th1 immune response, comprising:  
administering to a subject an oligonucleotide of claim 1 in an effective amount to induce a Th1 immune response.

37. (Withdrawn) A method of modulating an immune response in a subject, comprising administering to the subject an effective amount for modulating an immune response of an oligonucleotide comprising:

5'-X<sub>1</sub>YRM<sub>1</sub>-3'

wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide,

wherein X<sub>1</sub> is a nucleotide,

wherein Y is a cytosine or a modified cytosine,

wherein R is a guanine or a modified guanine,

and wherein M<sub>1</sub> is a nucleic acid of 1-3 nucleotides.

38-51. (Canceled).

52. (Withdrawn) A composition, comprising a multimerized complex of an oligonucleotide comprising:

5'-X<sub>2</sub>YRM<sub>2</sub>-3'

wherein X<sub>2</sub> is a nucleic acid that consists of a single nucleotide, or a dinucleotide or a trinucleotide that does not comprise a CG dinucleotide, wherein Y is a cytosine or a modified cytosine, wherein R is a guanine or a modified guanine, wherein M<sub>2</sub> is a nucleic acid of 0-27 nucleotides, and

a multimerization unit linked to the 3' end of the oligonucleotide.

53-62. (Canceled).

63. (Withdrawn) An oligonucleotide comprising:

5'-X<sub>3</sub>CGM<sub>3</sub>-3'

wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein X<sub>3</sub> is a single nucleotide that does not comprise a CG dinucleotide, wherein M<sub>3</sub> is a nucleic acid of 3-27 nucleotides that is free of a CG dinucleotide, and wherein M has at least one of the following properties: is free of a TC dinucleotide, is at least 30% T nucleotides, consists of A, T, and G or is free of a CCTTCC hexamer having at least one modified internucleotide linkage.

64. (Withdrawn) An oligonucleotide comprising:

5'-X<sub>4</sub>CGM<sub>4</sub>-3'

wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein X<sub>4</sub> is a dinucleotide that does not comprise a CG dinucleotide, wherein M is a nucleic acid of 2-26 nucleotides that is free of a CG dinucleotide, and wherein M<sub>4</sub> has at least one of the following properties: is free of a TG or a GT dinucleotide, is at least 38% T nucleotides or consists of A and T.

65. (Withdrawn) An oligonucleotide comprising:

5'-X<sub>5</sub>CGM<sub>5</sub>-3'

wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein X<sub>5</sub> is a trinucleotide that does not comprise a CG dinucleotide, wherein M<sub>5</sub> is a nucleic acid of 1-25 nucleotides that is free of a CG dinucleotide, and wherein M<sub>5</sub> has at least one of the following properties: is free of a CT dinucleotide and does not include at least one phosphorothioate linkage, is at least 41% T nucleotides, or consists of A and C.

66-67. (Canceled).

68. (Withdrawn) An oligonucleotide comprising:

5'-TTGM<sub>6</sub>-3'

wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein M<sub>6</sub> is a nucleic acid that consists of 5-21 nucleotides, wherein M does not comprise a CG dinucleotide, wherein M<sub>6</sub> is comprised of at least 30% T nucleotides, and wherein said nucleotide is 10-24 nucleotides in length.

69. (Withdrawn) An oligonucleotide comprising:

5'-X<sub>6</sub>CGM<sub>7</sub>-3'

wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein X<sub>6</sub> is 1-3 nucleotides and does not include a CG dinucleotide, wherein M<sub>7</sub> is a nucleic acid of 6-27 nucleotides and includes at least three CG dinucleotides and is at least 50% T nucleotides.

70-74. (Canceled).

75. (Withdrawn) An oligonucleotide comprising:

5'-TTGM<sub>8</sub>-3'

wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, wherein  $M_7$  is a nucleic acid of 6-18 nucleotides and includes at least one CG dinucleotide and is at least 50% T nucleotides.

76-89. (Canceled).

90. (New) An oligonucleotide comprising:

5'TCGX<sub>1</sub>X<sub>2</sub>N<sub>1</sub>3'

wherein X<sub>1</sub> is any nucleotide, X<sub>2</sub> is A, T, or C when X<sub>1</sub> is C or A, X<sub>2</sub> is A or G when X<sub>1</sub> is T, X<sub>2</sub> is any nucleotide when X<sub>1</sub> is G, N<sub>1</sub> is 2-95 nucleotides, wherein 5' designates the 5' end of the oligonucleotide and 3' designates the 3' end of the oligonucleotide, and wherein N<sub>1</sub> does not include an unmethylated CG motif, wherein the oligonucleotide is 13-40 nucleotides in length.